32□ LCD TV User's Guide

- Please observe all safety precautions when using this product.
- Please read this manual carefully before using this product.

CONTENTS

- Quick and Easy Installation
- Versatility and Expandability
- That doesn□t make you feel fatigue on your Eyes.
- Flat-Panel Digital Display easy on the Eyes.

Safety Precautions

- Power Supply 4
- Installation 5
- Use and Maintenance ..... 5~6
- Important Safety Instructions ..... 7~8

User Guidance Information

- What is the LCD TV? 9
- Name of each part 10
- Controls and Functions 11
- Accessories 11
- Mounting on a wall 12
- Installation Precautions 12
- Installing an Antenna 13
- Remote controller 14
- Precautions 15

Connections

- VCR Connections 16
- Cable TV Connections 17
- Camcorder/ Game Console Connections 18
- DVD Connections 19
- DTV Connections 20
- PC Connections 21
- Audio Out Connections 22
- Headphone Connections 22
- External Adjustment 23

Basic Use

- Powering the LCD TV 24
- Initial Settings 24
- Watching TV 25
- Selecting TV/ External Input 26
- Using the Menu 26

CONTENTS

Basic Use

- To Set Location 27
- Setting Channels 28
- To set or erase a channel 28
- Changing Picture Settings 29
- Changing Sound Settings 30
- Custom Sound Adjustment 31
- Sound Output 31
- Selecting the Menu Language 32
- Setting OSD Tone Menu Background 32
- Setting Blue Background 33
- Setting Digital Noise Reduction 33

Application

- Changing Screen Size 34
- Changing the Screen Size for WSS Signal Input 35
- Manual Store 35
- Sorting Program 36
- Editing Program Name 37
- Adjusting Unclear Screen 38
- To view the still picture 38
- Viewing Picture in Picture ..... 39~40
- Auto Volume Level 41
- Stereo Setting 41
- Resetting LCD TV Setting 42
- Setting Time 43
- Automatic Power On/ Off 44
- Teletext 45

Maintenance and Service

- Trouble shooting 46
- Trouble shooting Tip 47
- Supported Display Modes ..... 47~48

Power Supply

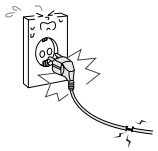
Warnings

Do not touch the power plug with wet hands.

- Doing so may result in electric shock.

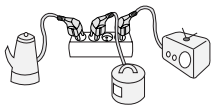
Do not use a damaged power cord or plug or a loose outlet.

- Doing so may result in fire or electric shock.



Do not plug several devices into the same outlet.

- Doing so may cause the outlet to overheat and start a fire.



Insert the power plug fully into the outlet.

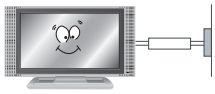
- A loose or improperly inserted power plug may result in fire.

Do not bend the power cord excessively or place heavy objects on it.

- Doing so may result in fire or electric shock.

Be sure to ground the unit.

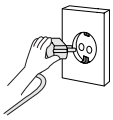
- Failing to do so may lead to electric shock when a short circuit or overload occurs. If necessary, install a ground fault circuit breaker. Never ground to a telephone line, lightning rod, or metal gas pipe. (Doing so may result in fire, electric shock, or other hazards.)



Cautions

When disconnecting the power cord from an AC outlet, always grasp it by the plug.

- Pulling on the cord can damage the internal wire and may result in fire.



Always unplug the unit before cleaning.

- Not doing so may result in fire or electric shock.

The purpose of these precautions is to ensure user safety and prevent property damage.
Be sure to read and observe all safety precautions.

Installation

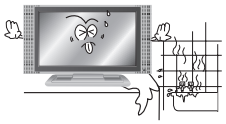
Warnings

Do not place containers with liquids such as flower vases, soft drink cans, or medicine bottles or small metallic objects on top of the unit.

- If liquid enters the unit or any metal object falls into the unit, it may result in short-circuit, fire, or electric shock.

Do not place the unit where it is exposed to rain, excessive moisture or grease.

- Doing so may result in fire, electric shock, malfunction, or deformation.



Do not use or store flamm able or combustible materials near the unit.

- Doing so may result in fire or explosion.

Do not place the unit on an unstable surface, such as a wobbly stand or sloped table, or on any surface whose area is smaller than the bottom area of the unit.

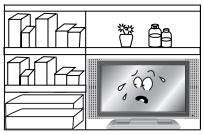
- If a child climbs on the unit, it could topple and fall onto the child, resulting in serious injury to the child or damage to the unit. Place the unit on a flat stable surface.

Do not place a burning candle, burning anti-mosquito incense, or lighted cigarette on top of the unit. Do not place the unit near any heat source such as a fireplace or space heater.

- Doing so poses a serious risk of fire.

Do not place the unit in a poorly ventilated enclosure, such as a cabinet.

- Doing so poses a serious risk of fire.

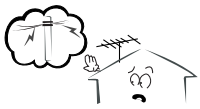


Do not run power cords near heat-producing appliances such as radiators, stoves, or irons.

- The excessive heat could melt the insulation and expose live wires, resulting in fire or electric shock.

Install the antenna away from high-voltage power lines and communication cables and make sure it is installed securely.

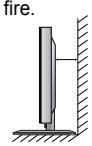
- If the antenna touches a power line, contact with the antenna could result in fire, electric shock, serious injury, or death.



Cautions

Install the unit at an adequate distance from the wall to ensure sufficient ventilation.

- If the temperature inside the unit rises, it may resultin fire.



Do not cover the unit with a tablecloth, curtain, or other material.

- If the temperature inside the unit rises, it may result in fire.

Be sure to place the unit on a level surface.

⚠ Warnings

Form a drip loop where the coaxial antenna cable enters your building to prevent rainwater from traveling along the cable and coming in contact with the antenna input terminal.

- If rainwater finds its way inside the unit, it may result in fire or electric shock.

● The following precautions are divided into "Warnings" and "Cautions".

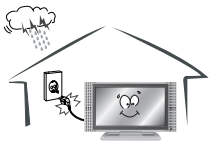
⚠ Warning : Ignoring this precaution may result in death or serious injury.
⚠ Caution : Ignoring this precaution may result in injury or property damage.

Use and Maintenance

Warnings

Disconnect the power cord from the wall outlet during an electrical storm.

- Not doing so may result in fire or electric shock.



Do not insert any metal objects, such as a screwdriver, paper clip, or bent wire into the ventilation openings or A/V terminals.

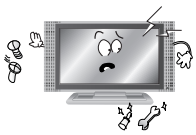
- Doing so poses a serious risk of fire or electric shock.

Do not allow children to climb or hang on the unit.

- The unit could topple over onto a child and result in serious injury.

Never disassemble or modify the unit in any way. Do not attempt to service the unit yourself.

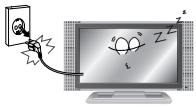
- Doing so may result in fire or electric shock. If the unit requires repair, contact the service center.



Cautions

When not using the unit for long periods of time, disconnect the power cord from the wall outlet.

- Dust could accumulate over time on the unit and cause it to generate heat and ignite, or deteriorate insulation, which in turn may result in an electrical fire.



When moving the unit, be sure to turn off the unit and unplug the power cord from the wall outlet.

- Moving the unit with the power cord connected to the outlet may cause damage to the cord, resulting in fire or electric shock.

If you notice any unusual odors or smoke around the unit, immediately disconnect the unit from the outlet and contact the service center.

- Failure to do so may result in fire or electric shock.

⚠Warnings

When removing the batteries from the remote control, make sure children do not swallow them. Keep the batteries out of the reach of infants and children.

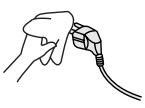
- If a child has swallowed a battery, seek medical attention immediately.

Always use two or more people to lift or move the unit.

- If the unit is dropped, it could be damaged or otherwise cause injury.

Wipe off any moisture, dirt, or dust on the power plug pins with a clean dry cloth.

- Failure to do so may result in fire or electric shock.



It is advisable to clean the interior of the unit at least once a year. Contact the store of purchase or service center for information.

- Continuing to use the unit without cleaning off the dust build-up inside it may result in fire or electric shock.

Always turn off the unit and unplug the power cord when cleaning the unit. Use a soft dry cloth to clean the unit.

- Never clean with industrial strength polish, wax, benzene, paint thinner, air freshener, lubricant, detergent, or other such chemicals. Also, do not clean with a damp cloth.

Important Safety Instructions

● Important safeguards for you and your new product

Always be careful when using your LCD TV. To reduce the risk of fire, electrical shock, and other injuries, keep these safety precautions in mind when installing, using, and maintaining your machine.

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this apparatus near water.

6) Clean only with a dry cloth.

7) Do not block any of the ventilation openings. Install in accordance with the manufacturer's instructions.

8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9) Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11) Only use the attachments/accessories specified by the manufacturer.

12) Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13) Unplug this apparatus during lightning storms or when unused for long periods of time.

14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

¥Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus

Important Safety Instructions

CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol indicates high voltage is present inside. It is dangerous to make any kind of contact with any inside part of this product.

This symbol alerts you that important literature conceming operation and maintenance has been included with this product.

NOTE TO CABLE/TV INSTALLER :

This reminder is provided to call the CATV system installer□s attention to Article 820-40 of the National Electric Code (U.S.A.). The code provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of the cable entry as practical.

WARNING

TO PREVENT DAMAGE WHICH MAY RESULT IN FIRE OR ELECTRIC SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

Caution :

- These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.
- Any changes or modifications not expressly approved by the party responsible for compliance could void the user□s authority to operate the equipment.

What is LCD TV?

LCD (Liquid Crystal Display) is a next generation flat-panel display module. Liquid crystal material is contained between sheets of glass and electricity causes the liquid crystal material to reflect or block the light emitted from a light source inside the display chassis.
By incorporating this LCD display module, LCD TVs enable you to enjoy outstanding picture quality without the worries of space limitation and harmful radiation you may have experienced with conventional CRT TVs.

Features

- Picture-in-Picture : Enables you to simultaneously display two different image sources.
- PC Compatible Monitor : Enables you to connect PC (D-Sub) input for displaying high-resolution SXGA (1280x1024, 60Hz) PC images.
- HDTV-Ready Display : Enables you to view high-definition digital pictures using a DVD player or HDTV set-top receiver.
- Various Picture/Sound Controls : Enables you to set the picture and sound settings for a number of different types of programs and viewing and listening conditions.
- Auto Power On/Off Timer : Enables you to set the TV to automatically turn ON or OFF at a preset time.
- ATM : Enables you to set the TV to search for all available standard broadcast and cable TV channels and store them automatically.

Names of each part

Front View

❶ Main Power Button
- Please turn off the main power switch, if the LCD TV will not be used for a long period of time.

❷ Stand by Button

❸ Source Button
- Input Source Select Button

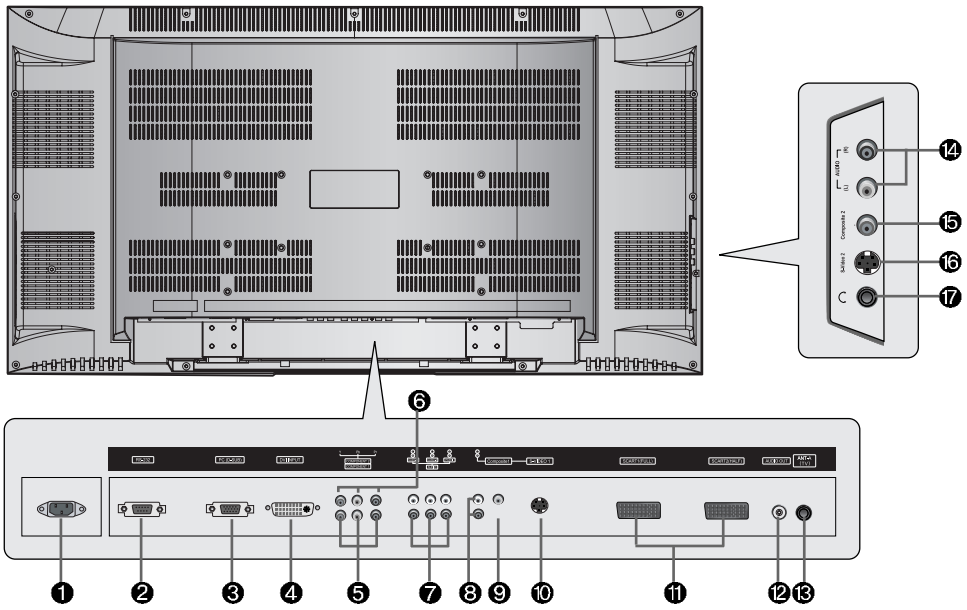
❹ Menu Button
- OSD Menu Display Button

❺ Program/Channel ▼, ▲ Button

❻ Volume ◀, ▶ Button

Controls and Functions

Back View



❶ AC Input
❷ RS-232C Terminal
❸ Analog RGB (D-SUB)
❹ Digital RGB (DVI-D)
❺ Component 1
❻ Component 2
❼ Audio Input (Component 1, 2, PC/DVI)
❽ Audio Input (Composite 1/S-Video 1)
❾ Composite 1
❿ S-Video 1
⓫ SCART (Full SCART, Half SCART)
⓬ Audio out
⓭ ANT A-Terrestrial
⓮ Audio Input (Composite 2/S-Video 2)
⓯ Composite 2
⓰ S-Video 2
⓱ Headphone

Accessories

- The configuration of the components may look different from the following illustration.

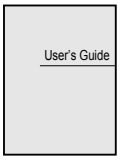
SCART Cable
(Europe+Middle East only)

Power Cord

Audio out Cable

Antenna Cable

Battery 1.5V(AAA ×2)



User's Guide

Remote Control

Mounting on a Wall

▶ Your LCD TV can be mounted on a wall as shown in the figure above.

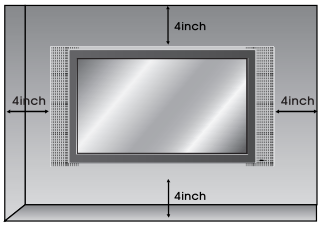
Installation Precautions

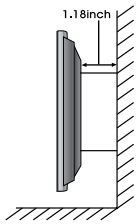
Wall Mounting

- Please secure enough space for safe use. (Please refer to A and B.)
- Installation of the LCD TV in an improperly ventilated location can cause a fire or damage to the LCD TV due to increased temperature.

A

(Mounting on a wall)





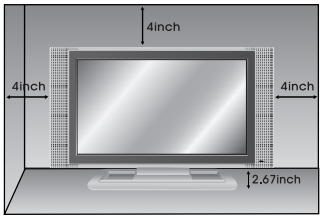
※ Contact your dealer to purchase the "Adjustable-angle wall mount" required for wall-mounted installation.

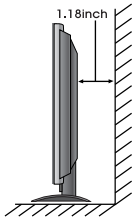
Using the Stand

- Do not install on an unstable location with support area smaller than the LCD TV.

B

(Using the Stand)



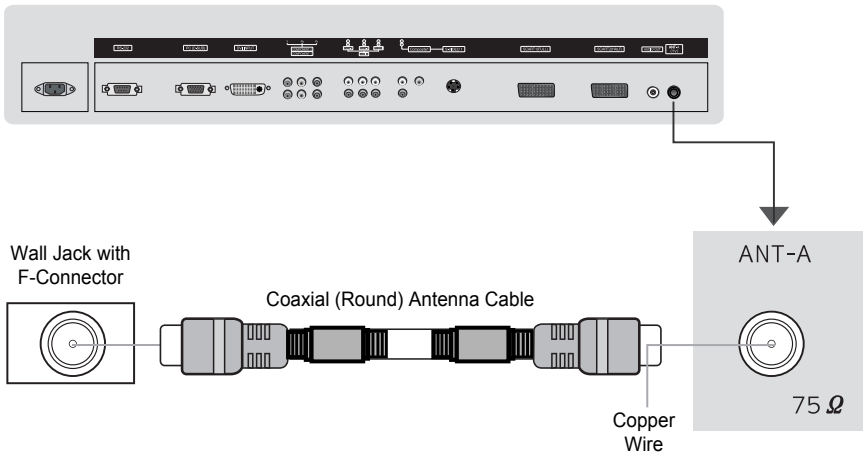


Installing an Antenna

For an Apartment or Condo Complex

● Using an Indoor Antenna

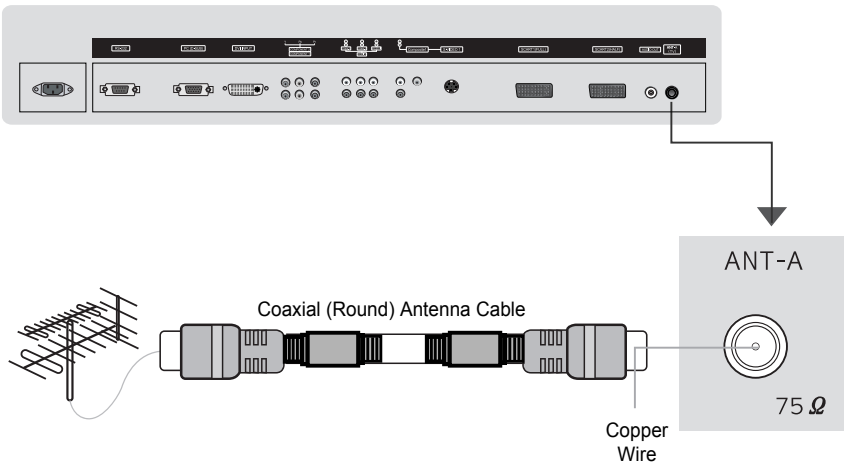
Locate a wall jack with an F-connector, and then connect the coaxial antenna cable to the wall jack.



For a House

● Using an Outdoor Antenna

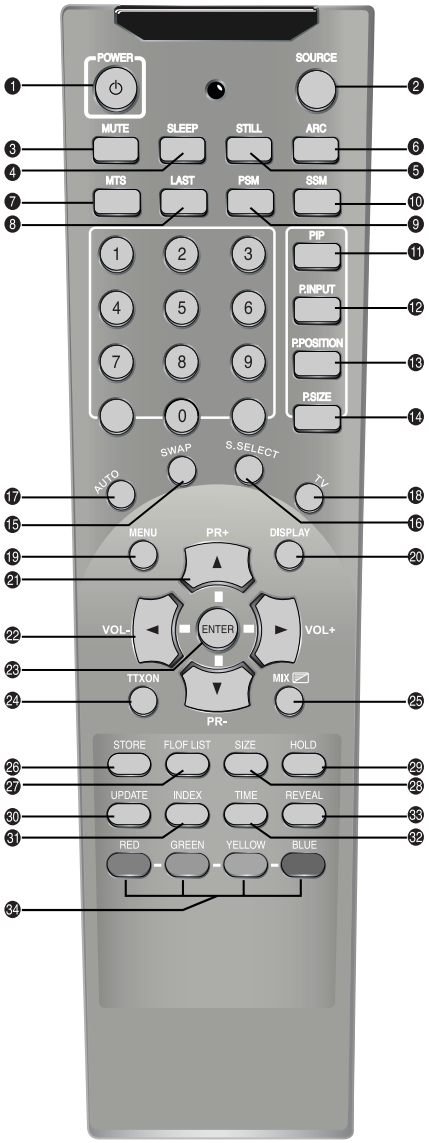
To install or use an outdoor antenna, if possible, consult a qualified technician for help.



Remote Controller

●Functions of remote control buttons

The remote control is using Infra-Red (IR). Point it towards the front of the LCD TV. The remote control may not work correctly if it is operated out of range or out of angle.



1. POWER : TURNS THE TV ON AND OFF(page.24)
2. SOURCE : USE TO SELECT AN INPUT SOURCE (page.26)
3. MUTE : PRESS TO TEMPORARILY CUT OFF THE SOUND (page.25)
4. SLEEP : PRESS TO SELECT A TIME FOR THE TV TO TURN OFF AUTOMATICALLY (page.44)
5. STILL : PRESS TO STOP THE ACTION DURING A PARTICULAR SCENE (page.38)
6. ARC (Aspect Ratio Control) : PRESS TO CHANGE THE SCREEN SIZE (page.34)
7. MTS (Multi-Television Sound) : PRESS TO SELECT MONO OR STEREO MODE (page.41)
8. LAST : TUNES TO THE PREVIOUS PROGRAM (page.25)
9. PSM : PICTURE STATUS MEMORY KEY (page.29) (CUSTOM, DYNAMIC, STANDARD, MOVIE, MILD)
10. SSM : SOUND STATUS MEMORY KEY (page.30) (CUSTOM, STANDARD, MUSIC, MOVIE, SPEECH)

◈ **PIP CONTROL KEY** (page 39, 40)

11. PIP : PIP ON/OFF
12. P.INPUT : PIP INPUT SELECT KEY
13. P.POSITION : PIP POSITION CONTROL KEY
14. P.SIZE : PIP AND PBP MODE CHANGE
15. SWAP : PIP SOURCE SWAP
16. S.SELECT : SOUND SWAP KEY

17. AUTO (AUTO IN PROGRESS) : PRESS TO CONTROL THE MONITOR SCREEN AUTOMATICALLY
18. TV : TV INPUT SOURCE SELECT KEY
19. MENU : DISPLAYS THE MAIN ON-SCREEN MENU
20. DISPLAY : PRESS TO DISPLAY THE CURRENT PROGRAM AND AUDIO/ VIDEO SETTINGS (page.25)
21. ▲,▼ (PR+, PR-) : PROGRAM, MENU CONTROL OR PAGE UP AND DOWN KEY, STAND BY ON
22. ◀,▶ (VOL-, VOL+) : PRESS TO INCREASE OR DECREASE THE VOLUME OR MENU CONTROL KEY
23. ENTER : SAVE THE VALUE

◈ **TELETEXT CONTROL KEY** (page 45)

24. TTXON : TEXT ON KEY
25. MIX : MIX WITH TV SCREEN
26. STORE : STORE THE USER DEFINED FAVORITE PAGE
27. FLOF LIST : EXCHANGE FLOF/LIST MODE
28. SIZE : TELE TEXT SCREEN SIZE KEY
29. HOLD : HOLD FUNCTION DURING TELETEXT DISPLAY
30. UPDATE : DISPLAY CANCEL OR TEXT UPDATE KEY
31. INDEX : TEXT INDEX KEY
32. TIME: TIME DISPLAY
33. REVEAL : SELECT HIDDEN CONTENT DURING TELETEXT DISPLAY
34. RED, GREEN, YELLOW, BLUE : DIRECT ACCESS TELETEXT LINKED PAGE KEY

Precautions

Avoiding Remote Control Problems

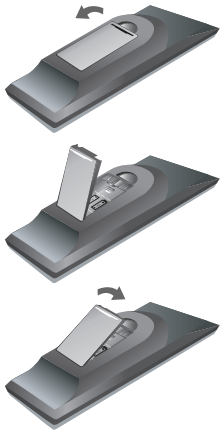
1. Check the polarity (+,-) of the batteries in the remote controller.
2. Check that the batteries have power.
3. Check that the LCD TV is powered and that it is properly plugged in.
4. Check if any three-wavelength lamp, special fluorescent or neon sign is turned on near the LCD TV.

Instering Batteries in the Remote Controller

1. Open the cover out completely.

2. Insert the two supplied batteries (AAA, 1.5V). Ensure that the polarities (+ and -) of the batteries are aligned correctly.

3. Replay the cover.



⚠ CAUTION : Risk of explosion if battery is replaced by an incorrect type.
Dispose of used batteries according to the national code (Recycling program).

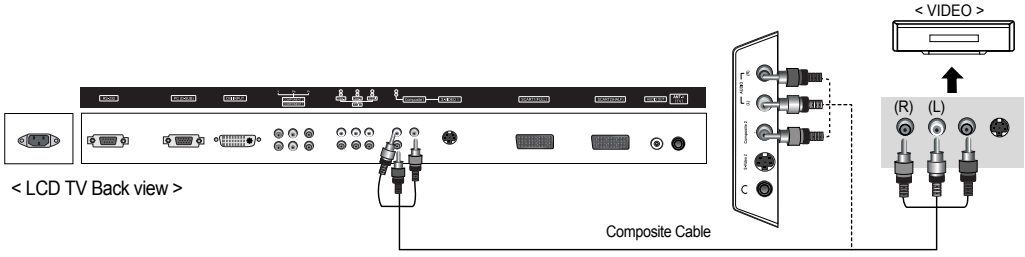
How to use remote controller

- The remote control should be operated within 23feet(7m) and 30° to the left and the right of the IR receiver on the front of the LCD TV.
- Used batteries should be disposed properly.

VCR Connections

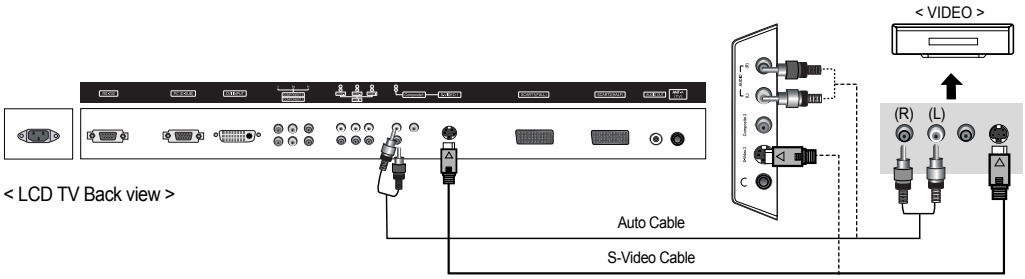
Connecting to the composite terminal

※ Connection terminals of other appliances differ by manufacture and model.



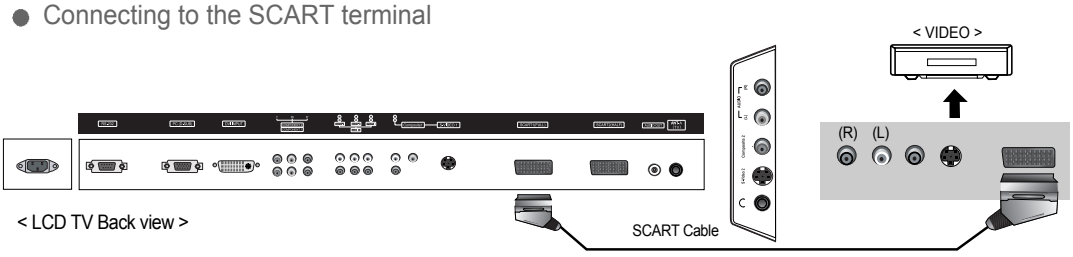
· Connect the LCD TV's Composite In terminal to the VCR's Composite Out terminal using the Composite cable.
(Make sure the colour of the terminals and the colour of the cable are the same)

Connecting to the S-Video terminal



※ Use the S-Video cable for higher picture quality.

Connecting to the SCART terminal



· Connect the SCART terminal of the LCD TV and the VCR with the SCART cable.

Playing the VCR

1. Turn on the LCD TV and press on the remote controller.

2. Use to move to "Composite 1/2".

· If S-Video has been connected, select "S-Video 1/2".

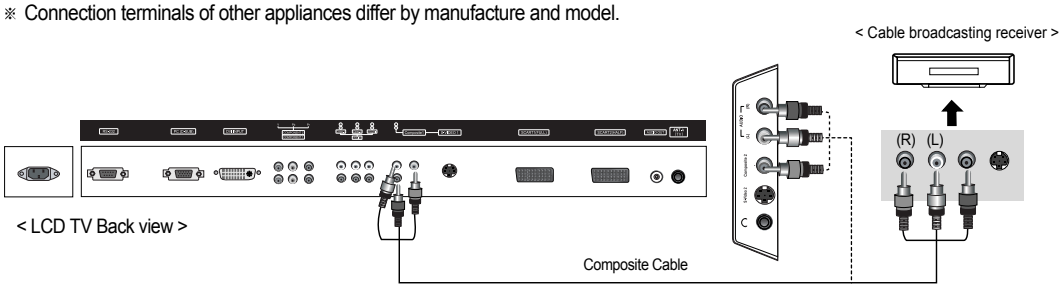
· If SCART terminal has been connected, select SCART1 or SCART2.

3. Turn on the VCR, insert the tape and press play button.

Cable TV Connections

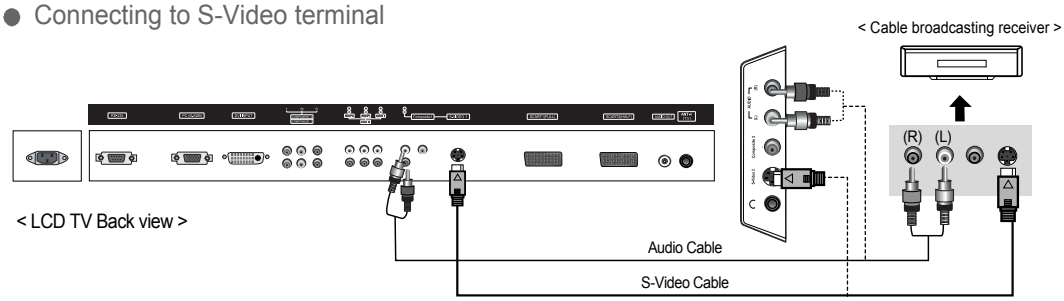
Connecting to the composite terminal

※ In order to watch Cable TV, Subscribe to your local Cable TV company and install a separate converter(Set-Top-Box)
※ Connection terminals of other appliances differ by manufacture and model.



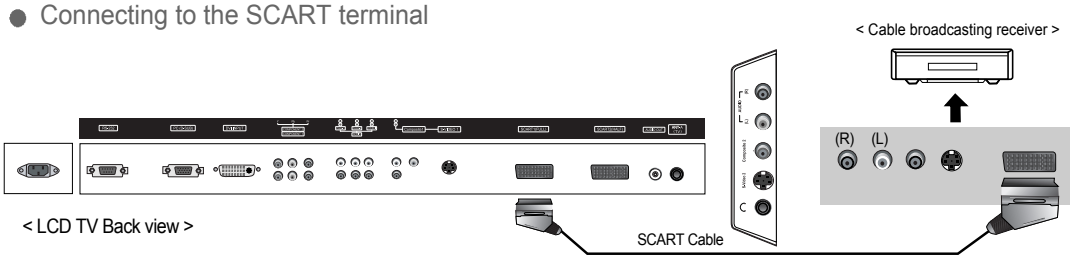
· Connect the LCD TV's Composite in terminal to the cable broadcasting receiver□s composite Out terminal using the Composite cable. (Make sure the colour of the terminals and the colour of cable are the same)

Connecting to S-Video terminal



※ Use the S-Video cable for higher picture quality.

Connecting to the SCART terminal



· Connect the SCART terminal of the LCD TV and the cable broadcasting receiver with the SCART cable

Viewing Cable TV

1. Turn on the LCD TV and press on the remote controller.
2. Use to move to "Composite 1/2".

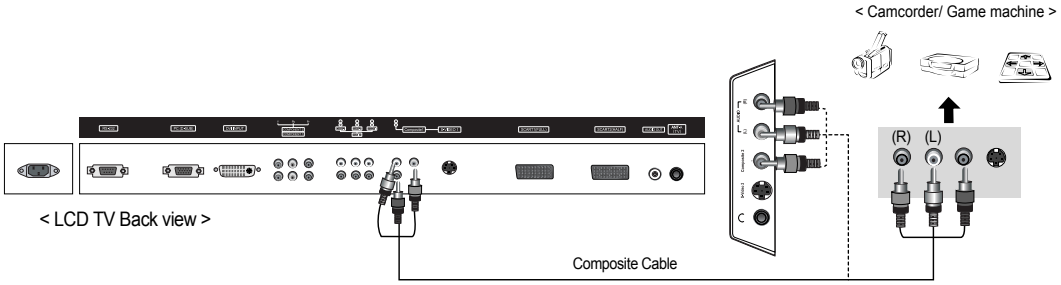
· If S-Video has been connected, select "S-Video 1/2".
· If SCART terminal has been connected, select SCART1 or SCART2.

3. Turn on the cable broadcasting receive and select the channel you wish to view.

Camcorder/Game Console Connections

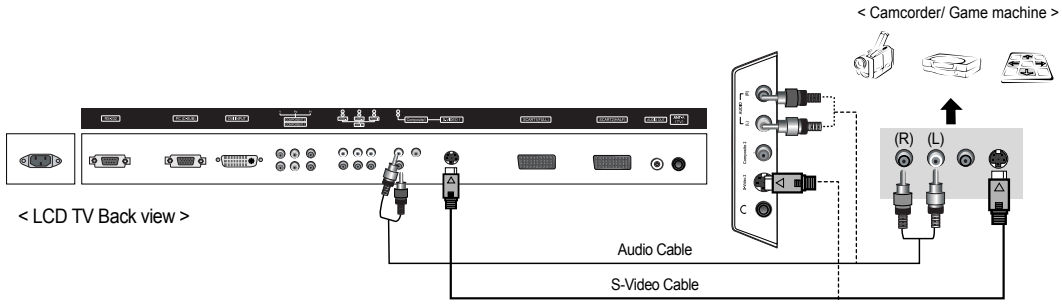
Connecting to the composite terminal

※ Connection terminals of other appliances differ by manufacture and model.



· Connect the LCD TV's Composite In terminal to the camcorder/game console's Composite Out terminal with the Composite cable. (Make sure the colour of the terminals and the colour of cable are the same)

Connecting to S-Video terminal



※ S-Video cable can be used if there is an S-Video terminal.

Using Camcorder/Game Console

1. Turn on the LCD TV and press on the remote controller.
2. Use to move to "Composite 1/2".

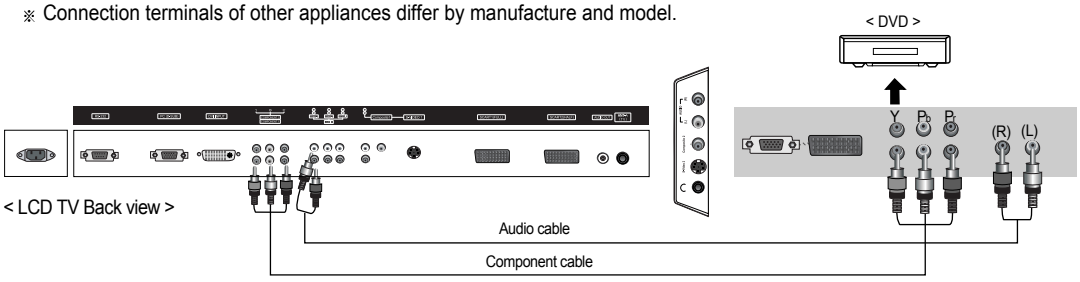
· If S-Video has been connected, select "S-Video 1/2".

3. Turn on the Camcorder or video game and Set to Video mode.
   (Please refer to the User's manual of Camcorder/ Video game for more information)
4. Insert tape into Camcorder and press play button or insert disc into the Video game console.

DVD Connections

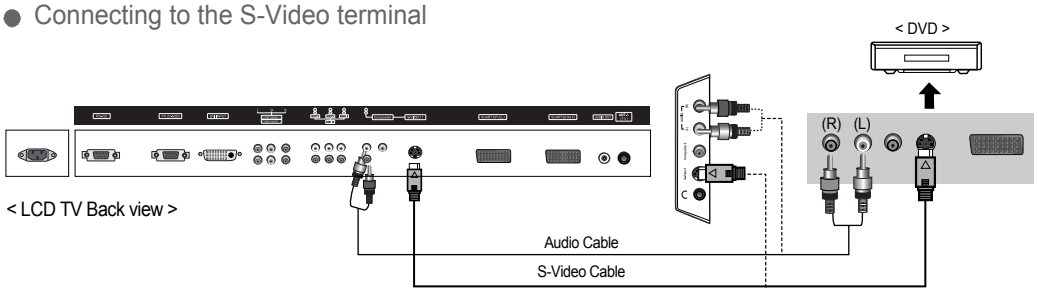
● Connecting to the component terminal

※ Connection terminals of other appliances differ by manufacture and model.



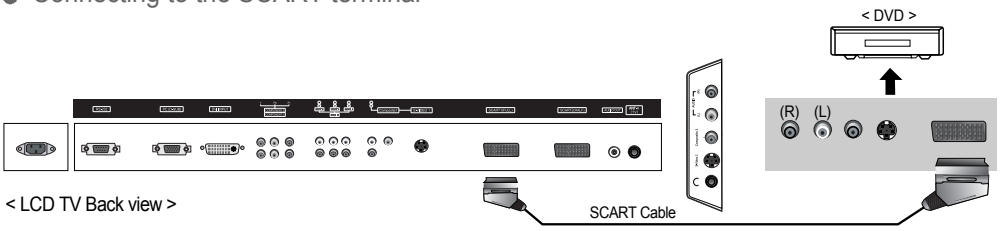
1. Connect LCD TV's Y, P_b, P_r terminal in component 1/2 to DVD's Video Out terminal using the external cable.
2. Connect LCD TV's Audio terminals (left & right) in component 1/2 to DVD's Audio Out terminal using the Audio cable.

● Connecting to the S-Video terminal



※ S-Video cable can be used if there is an S-Video terminal.

● Connecting to the SCART terminal



· Connect the SCART terminal of the LCD TV to the DVD with the SCART cable.

Playing the DVD

1. Turn on the LCD TV and press on the remote controller.
2. Use to move to "Component 1/2".

· If S-Video has been connected, select "S-Video 1/2".

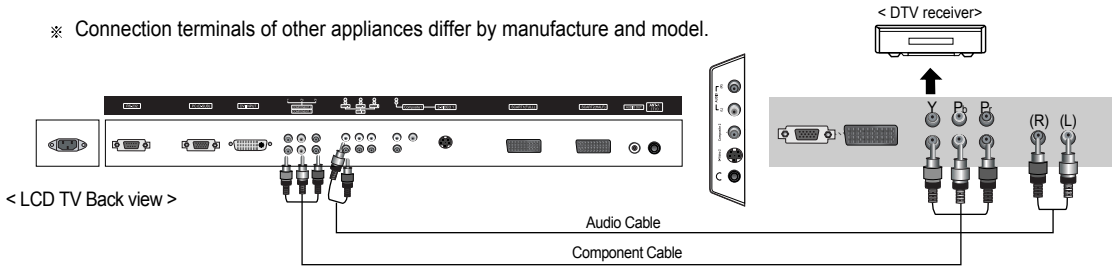
· If SCART terminal has been connected, select SCART1 or SCART2.

3. Turn on the DVD, insert the DVD and press Play button.

DTV Connections

● Connecting to the component terminal

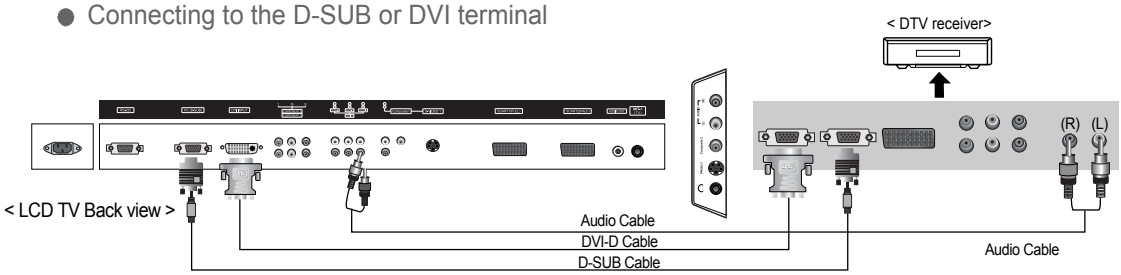
※ Connection terminals of other appliances differ by manufacture and model.



1. Connect LCD TV's Y, P_b, P_r terminal in component 1/2 to Video receiver's Video Out terminal using the external cable.
2. Connect LCD TV's Audio terminals (left & right) in component 1/2 to DTV receiver's Audio Out terminal using the Audio cable.

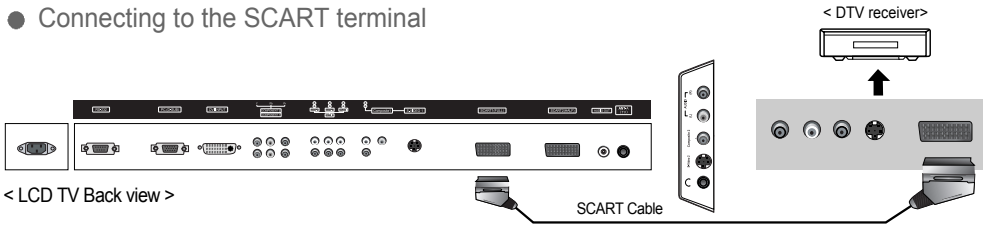
※ DTV receiver's output terminal can be marked Y, P_b, P_r or Y, C_b, C_r according to products.

● Connecting to the D-SUB or DVI terminal



- Some of DTV receiver(Set-Top-Box) have an PC Connector (D-Sub 15pin) instead of Component output .
- Some of DTV receiver(Set-Top-Box) have an DVI Connector instead of Component output .
- Connect Audio Cable from the Audio output terminal of receiver to the PC Audio input terminal of the LCD TV.

● Connecting to the SCART terminal



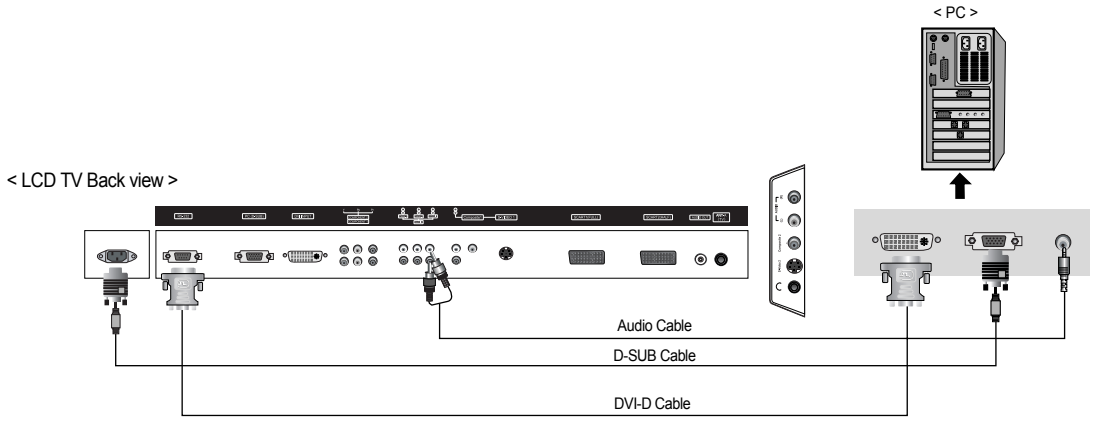
- Connect the SCART terminal of the LCD TV to the DTV receiver with the SCART cable.

Viewing DTV

1. Turn on the LCD TV and press on the remote controller.
2. Use to move to "Component 1/2".
   - If D-Sub 15 Pin terminal has been connected, select PC.
   - If DVI terminal has been connected, select "DVI".
   - If SCART terminal has been connected, select SCART1 or SCART2 .
3. Turn on the DTV receiver and select the channel that you want.

PC Connections

※ Connection terminals of other appliances differ by manufacture and model.



· Connect LCD TV's RGB terminal to PC's RGB terminal using the D-Sub cable.

· Connect LCD TV's PC Audio terminal to PC's Audio terminal using the Audio cable.
(Only possible for PC's with Audio terminal)

· If there is a DVI- D terminal in your PC, use the DVI- D cable connection.

How to Use as PC

1. Turn on the LCD TV and press on the remote controller.

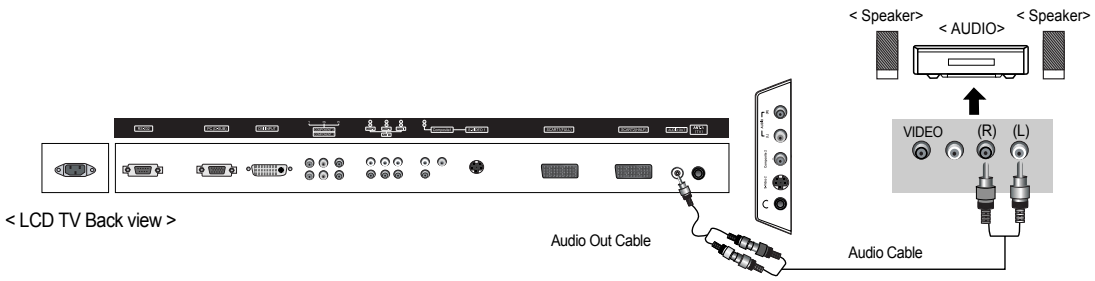
2. Use to move to "PC".

· If DVI has been connected, select "DVI".

3. Set the PC video output mode to VGA (640 × 480)/ SVGA (800 × 600)/ XGA (1024 × 768), SXGA (1280 × 1024, 60Hz). In the mode higher than SXGA (1280 × 1024, 60Hz) "Out of Range" message appears. Be sure to change your PC video format to less than SXGA mode.

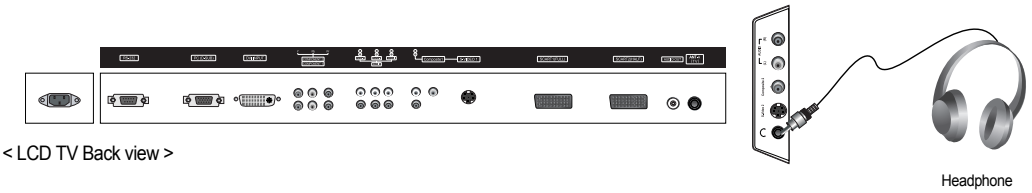
Audio Out Connections

※ Connection terminals of other appliances differ by manufacture and model.



· Connect LCD TV's Audio Out terminal to AUDIO's Audio Out terminal using the Audio Out Cable.

Headphone Connections

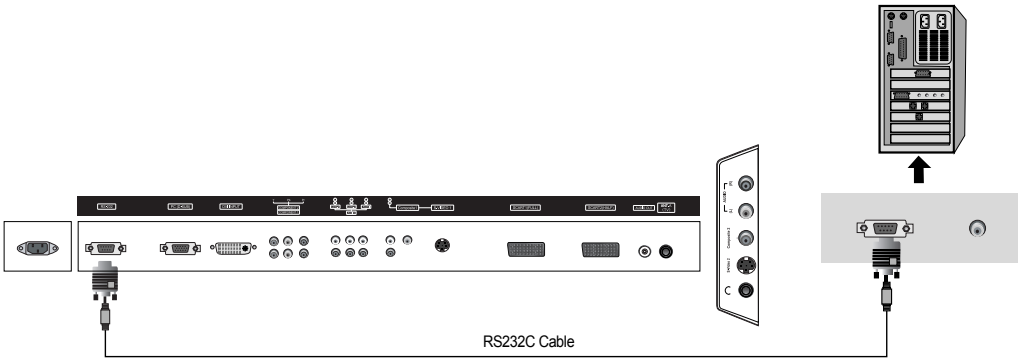


· Connect the Headphone to the LCD TV's headphone terminal.

External Adjustment

· Use the RS-232C jack to control monitor's functions externally by external equipment.

● How connect a external equipment



<Back view of the LCD TV>

⚠ Caution : Regular customer does not allow using the external adjustment that is used for service purpose only.

Powering the LCD TV

● Power on/ off

- To turn the LCD TV on :
  Press the "Main Power" button of LCD TV and then press the "Standby" button.
- To turn the LCD TV off :
  Press "Standby" button on the LCD TV and then press the "Main Power" button.
  Turning the main power switch off will save energy. It is the same as unplugging the power cord.
  If ON Time setting is set, the main power should be ON.
- To turn on/off by remote controller :
  Press the Power button of remote controller (If the LCD TV is not turned on, check that the "Main Power" button on the LCD TV main body is turned on. The main power indicator will light up red if turned on).

⚠ CAUTION - After turning off the main Power, please wait at least more than 3 seconds to turn the main power back on.

Initial Settings

- When the brand new television set it turned on for the first time, following settings can be set using the plug and play function of the TV.
- Press the "Main power" button of LCD TV and then press the "Stand by" button. You will see the country mode selection menu.

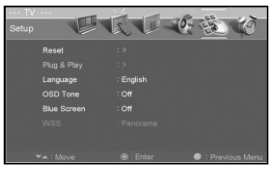
● Using the menu

Press MENU .

Use to move to .

Press to move to "Plug & Play".

Press ENTER to select.



Use to move to the desired "country".

Press ENTER to select.

- Automatically "ATM" beginning.
- After "ATM" ends, select the desired Language.
- Select other of none expressed country.

Use to move to the desired "Language".

Press ENTER to select.

Press MENU to go back to the previous menu.

Watching TV

Channel Selection

increases the channel.

decreases the channel.

To go back to the previous channel

Press to go back to the channel previously viewed.

Volume Control

increases the volume.

decreases the volume.

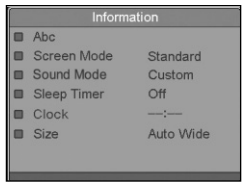
To turn off only sound

- Use the mute function to turn off the LCD TV sound for a while, when a phone or a bell rings.

Press button again to hear the sound again.

INFO - To check the current state

Press button on the remote control.



- Display shows user's setting and selections.

Press button or wait 10 seconds for the display to disappear.

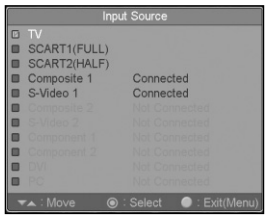
Selecting TV/External Input

- You can between the TV signal and the input signal of other appliances connected to the TV.
- Use this function to switch to the input source you wish to view.

Press

Use to move to the desired item.

Press to select.



※ Aside from the watching TV, you can connect SCART 1/2, Composite 1/2 , S-Video 1/2, Component PC and DVI to the TV set and enjoy these functions.

※ All input sources will be automatically detected and displayed on screen, but you may select an activated source when the input cable is connected only.

Using the Menu

Press . • The menu screen will appear.

Use (left, right arrows) to move the cursor to the desired function.

Press to get into the sub menu.

Press to select.

Press to go back to the previous menu.

To Set Location

Press

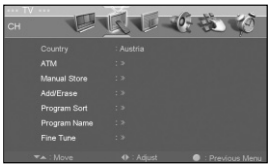
.

Use to move to .

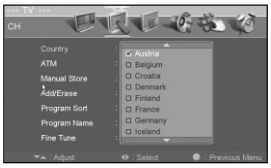
Press to move to "Country".

Press

to select.



Use to select the desired country.



Press

to go back to the previous menu.

- TV System Standard

I/PAL : United Kingdom, Hongkong
B.G/PAL : Germany ,Netherland, Switzerland, Italy, Austria, Yugoslavia
B/PAL : Australia, New Zealand, Singapore, Norway, India, Thailand, Indonesia, Malaysia
D/PAL : China, North Korea
B.H/PAL : Belgium
L/SECAM : France
D.K/SECAM : Russia, Poland, Czechoslovakia, Hungary
B/SECAM : Egypt, Iran, Iraq

Setting Channels

• Use the Auto Search function to preset all channels that are being broadcast

Press MENU .

Use ◄ ► to move to .

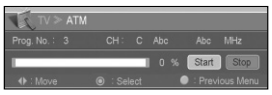
Press ▼ to move to "ATM".

Press ENTER to select.

Use ◄ ► to move to "Start".

Press ENTER to select.

• Press "Start" to start the automatic channel search/set function.
All broadcasting channels will be set.



Press MENU to go back to the previous menu.

• ATM : Auto tuning management.

To set or erase a channel

Press MENU .

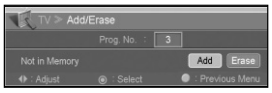
Use ◄ ► to move to .

Press ▼ to move to "Add/ Erase"

Press ENTER to select.

Use ◄ ► to move to "Add" or "Erase".

Press ENTER to select.



Press MENU to go back to the previous menu.

Changing Picture Settings

Press MENU .

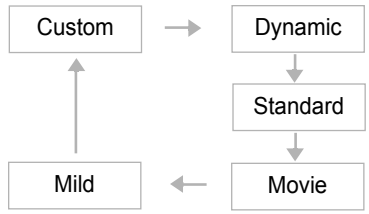
Use ◄► to move to .

Press ▼ to move to "Screen Mode".

Press ENTER to select.

Use ▲▼ select between Custom/ Dynamic/ Standard/ Move/ Mild.

Press ENTER to select.



- Custom : Select to set user's preferences.
- Dynamic : Select when using the LCD TV in a brightly lit environment.
- Standard : It is the best screen setting.
- Movie : Select when watching a movie.
- Mild : Select when using the LCD TV in a dimly lit environment.

Press MENU to go back to the previous menu.

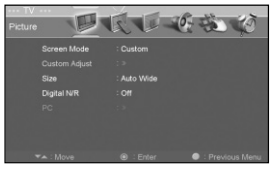
● Custom Picture Adjustment

Press MENU .

Use ◄► to move to .

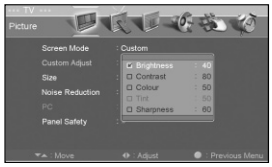
Press ▼ to move to "Custom Adjust".

Press ENTER to select.

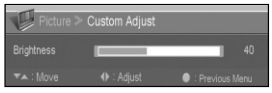


Use ▲▼ to move to the desired category.

Use ◄► to adjust the setting.



Use ▲▼ select between Brightness/ Contrast/ Colour/ Sharpness



Press MENU to go back to the previous menu.

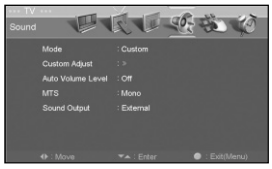
>Custom Mode

- Brightness : It adjusts the brightness of the image.
- Contrast : It adjusts the contrast of image.
- Tint : It adjust the natural tint of the image.
- Colour : It adjusts the intensity of the colour.
- Sharpness : It adjusts the clarity of the image.

Changing Sound Settings

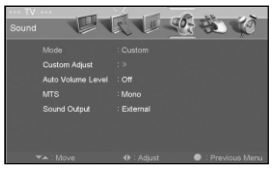
Press MENU .

Use to move to .



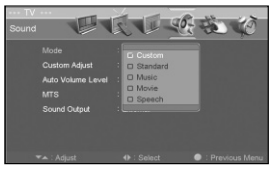
Press to move to " Mode".

Press to select.



Use select between Custom, Standard, Music, Movie, Speech.

Press to select.



Press MENU to go back to the previous menu.

Custom → Standard → Music → Movie → Speech

- Standard : It is the flat sound setting with no equalizer effect at all.
- Music : It is preset for music listening.
- Movie : It is preset sound for watching a movie.
- Speech : It is preset for hearing vocal audio clearly.
- Custom : Select when listening to the sound to user's preference.

>Custom Mode

- Volume : It adjusts the sound volume.
- Balance : It adjusts the volume of speakers on the left and the right.
- Equalizer : It adjusts the volume by frequency bands and the user can select the desired sound quality.

Custom Sound Adjustment

Press MENU .

Use to move to .

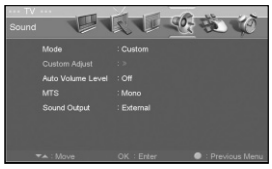
Press to move to " Custom Adjust".

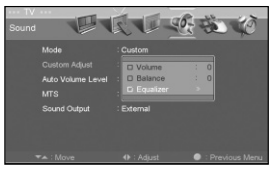
Press ENTER to select.

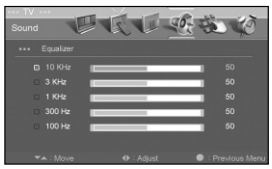
Use to move to the desired category.

Use to adjust the setting.

Press MENU to go back to the previous menu.







Sound Output

Press MENU .

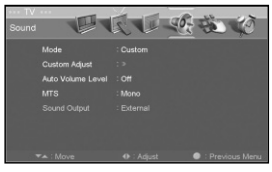
Use to move to .

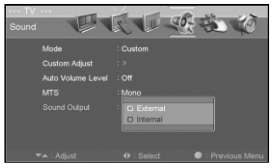
Press to move to " Sound Output".

Press ENTER to select.

Use to select the "External" or "Internal".

Press MENU to go back to the previous menu.





	Built-in Speaker	External Speaker	Note
External	X	O	500mVrms
Internal	O	X	Adjusts the Sound Volume

Selecting the Menu Language

- Menu screen can be viewed in the language preferred by the user.

Press MENU .

Use to move to .

Press to move to "Language".

Press ENTER to select.

Use to select the desired language.

Press MENU to go back to the previous menu.

Setting OSD Tone Menu Background

Press MENU .

Use to move to .

Press to move to "OSD Tone".

Press ENTER to select.

Use to select the "On" or "Off".

Press MENU to go back to the previous menu.

Setting Blue Background

- The LCD TV can be set to display blue screen when no TV signal or signal from other connected appliances are being received. If there is an incoming signal, the blue screen will be replaced by the normal picture screen.

Press MENU .

Use to move to .

Press to move to "Blue Screen".

Press ENTER to select.

Use to select the "On" or "Off".

Press MENU to go back to the previous menu.

Setting Digital Noise Reduction

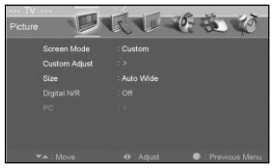
- Use when screen is noise or lines appear.

Press MENU .

Use to move to .

Press to move to "Digital N/R".

Press ENTER to select.



Use to select the "On" or "Off".

Press MENU to go back to the previous menu.

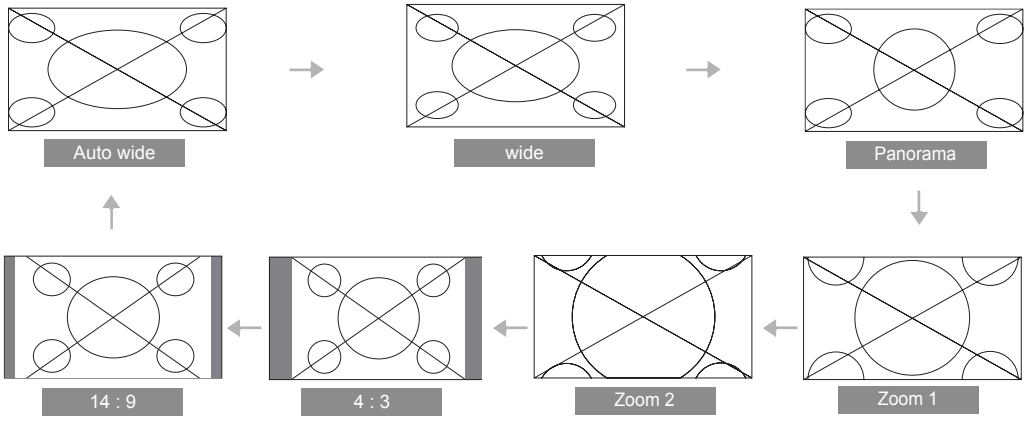
Changing Screen Size

Press

.

Auto wide → wide → Panorama → Zoom1 → Zoom2 → 4 : 3 (normal) → 14 : 9

- In PC input mode, you can only select either the wide or the normal (4 : 3) mode.
- In Component 1/2 input mode, you can't Select Auto Wide.
- In Component 1/2 input mode (1080i), you can't Select Zoom2.



>Screen Size

- Auto wide - It automatically displays for the screen format of input signal.
- wide - It makes 16 : 9 format for input signal.
- Panorama - It makes 4 : 3 format fit into 16 : 9 format with minimal loss in content.
- Zoom 1 - It enlarges the natural screen factor by approx. 5 %
- Zoom 2 - It enlarges the natural screen factor by approx. 10 %
- 4 : 3 - It is the standard format of broadcasting.
- 14 : 9 - It makes 14 : 9 format for input signal.

Changing the Screen Size for WSS Signal Input

- When WSS signal is incoming from a connected external appliance, screen size can be changed to panorama or 4 : 3.

Press MENU .

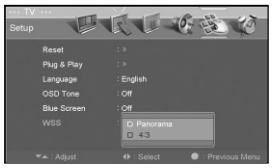
Use to move to .

Press to move to "WSS ".

Press ENTER to select.

Use to select the Panorama or 4 : 3.

Press MENU to go back to the previous menu.



- WSS : Wide Screen Size.

Manual Store

- Colour system and sound system can be setup for each channel.

Press MENU .

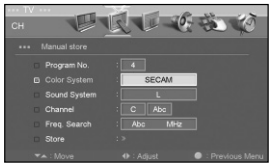
Use to move to .

Press to move to "Manual Store".

Press ENTER to select.

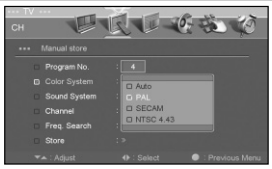
Use to move to the desired category.

Press to select.



Use to adjust the setting.

Press MENU to go back to the previous menu.



- Select "Yes" in Manual Store to save the Program settings.

Sorting Program

• In this mode, you can arrange programs in numerical order.

Press MENU .

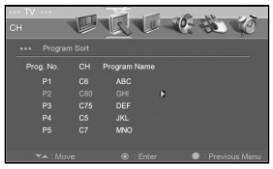
Use to move to .

Press to move to "Program Sort".

Press ENTER to select.

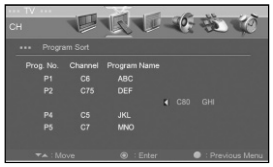
Use to move to the desired Program Number.

Press ENTER to move to the next category.



Use to move to the Preferred Program Number.

Press ENTER to sort.



Press MENU to go back to the previous menu.

Editing Program Name

- Favorite programs can be stored to make it easier to find.

Press

.

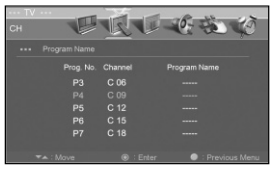
Use to move to .

Press to move to "Program Name".

Press

to select.

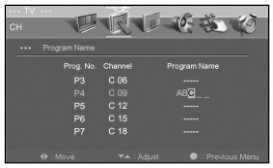
Use to move to the desired Program Number.



Press

to move to program name.

Use to register program name.



Press

to go back to the previous menu.

Adjusting Unclear Screen

- Use screen fine-tune controls to adjust the screen when picture quality is unclear or lines appear.

Press MENU .

Use ◀▶ to move to .

Press ▼ to move to "Fine Tune".

Press ENTER to select.

Use ◀▶ to tune.

Press MENU to go back to the previous menu.

To return to initial setting or Auto Setting, use ▲▼ to select "Reset" and press ENTER .

To view the still picture

Press STILL .

- Picture will freeze, but sound will continue to be heard.

Press STILL again to cancel.

Viewing Picture in Picture

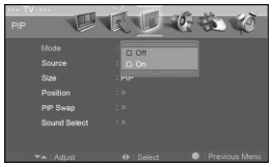
Press MENU .

Use ◀▶ to move to .

Press ▼ to move to "Mode".

Press ENTER to select.

Use ▲▼ to select the "On" or "Off".



Press MENU to go back to the previous menu.

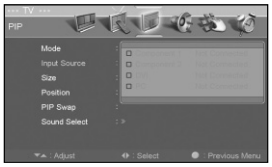
• Or press PIP .

• Sound from only one of the screens may be heard.

● TV/External Input

Press ▼ to move to "Input Source"

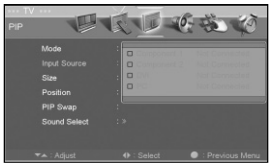
Press ENTER to select.



<In case, main source is Component 1/2, DVI, PC>

Use ▲▼ to select the desired input source.

Press MENU to go back to the previous menu.



<In case, main source isTV, SCART 1/2, Composite 1/2, S-Video 1/2>

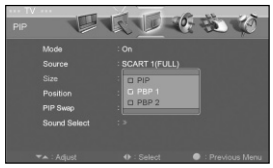
• Or press INPUT .

• The sub-screen can be changed to display picture from the desired input source.

● Changing the Screen Size

Press ▼ to move to "Size".

Press ENTER to select.



Use ▲▼ to select the desired size.

Press MENU to go back to the previous menu.

• Or press P.SIZE .

Viewing Picture in Picture

Selecting Position

Press to move to "Position".

Press to select.

Use to select the desired position.

Press to go back to the previous menu.

- Or press .
- Sub-screen position can be selected only from the .

Main Screen/Sub Screen Swap

Press to move to "PIP Swap".

Press to select.

Use to select the "Yes".

Press to select "OK".

Press to go back to the previous menu.

- The main screen and the sub screen will swap.

Selecting Sub Screen Sound

Press to move to "Sound Select".

Press to select.

Use to select the "Main" or "Sub".

Press to go back to the previous menu.

- The sound of the sub screen can be selected when PIP is being displayed.

Auto Volume Level

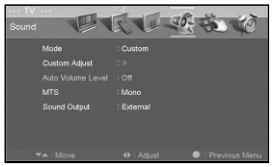
• This feature maintains an equal Volume level ; even if you change channels.

Press MENU .

Use to move to .

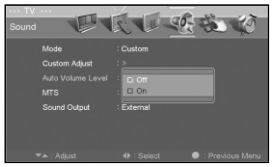
Press to move to "Auto Volume Level".

Press ENTER to select.



Use to select the "On" or "Off".

Press MENU to go back to the previous menu.



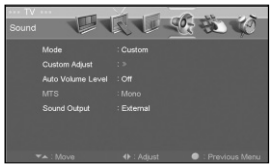
Stereo Settings

Press MENU .

Use to move to .

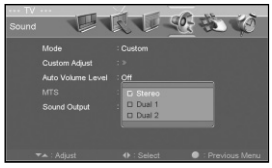
Press to move to "MTS".

Press ENTER to select.



Use to select the desired category.

Press MENU to go back to the previous menu.



• Or press MTS . (Multi Television Sound)

Resetting LCD TV Settings

- It resets all of the parameters to the factory default.

Press

.

Use to move to .

Press to move to "Reset".

Press

to select.

Use to select the "Yes".

Press

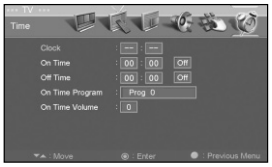
to select

※ The LCD TV will turn off. The parameters will be set to factory default.

Setting Time

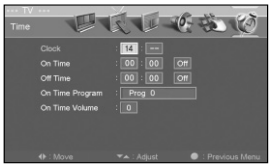
Press .

Use to move to .



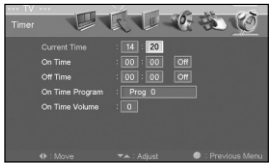
Press to move to "Clock".

Press to move one step.



Use to adjust the desired hour.

Press to move one step.



Use to adjust the desired minute.

Press to go back to the previous menu.

※ You can set your local time by adjusting the differences from GMT, according to your location.

Automatic Power On/Off

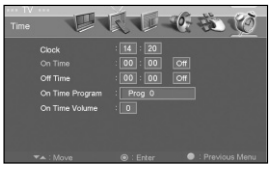
● Clock time must be set

Press

.

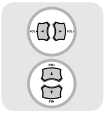
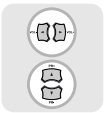
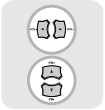
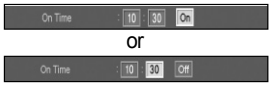
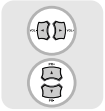
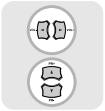
Use to move to .

Press to move to desired category.



Press

to go back to the previous menu.

	Setting Time for Power On	Setting Time for Power Off
Setting Hour Use  to select, to set		
Setting Minute Use  to select, to set		
Set/Cancel Use  to select, to select the "On" or "On"		
Channel Select Use  to select, to set program		
Volume Control Use  to select, to set volume		

• It sets the current time and then the automatic turn on/off can be set. The time settings are retained only if the main power is off, the time is reset. To retain the time setting, do not turn the main power switch off.

● To have the TV turn off after you fall a sleep

Press

.

• It automatically turns off the TV after a designated period of time
• Depending on the number of times the "Sleep" button is pressed, the TV will be turned off after 30, 60, 90, 120, 150 or 180 minutes.

Teletext

Basic Function

■TEXT On/Off

1. Press "ON" once , then displays the Teletext pages.
2. If you press "ON" once more, Text mode is off.

■TOP TEXT

The user guide displays four fields-red, green, yellow and blue at the bottom of the screen. The yellow field denotes the next group and the blue field indicates the next block.

- Group/Block/Page selection

1. WIth the blue button you can progress block to block.
2. Use the Yellow button to proceed to the next group with automatic overflow to the next block.
3. With the Green button you can proceed to the next existing page with automatic overflow to the next group.
4. The RED button permits to return to previous selection.

■FLOF TEXT

The teletext pages are colour coded along the bottom of the screen and are selected by pressing the corresponding coloured button.

- Page selection

1. Press the Index button to select the index page.
2. You can select the pages, which are colour coded along the bottom line with the same coloured buttons.

Special Teletext Function key

■MIX : In the mix mode display, the underlying video and the teletext page display are both simultaneously visible on the screen. This command turns the display to mix mode and is enabled only in the text mode.

■STORE : This command stores the user defined favorite pages. This command is enabled only if the list mode is active.

■LIST : This command toggles between list mode and current. Text mode(FLOF, TOP or normal)

■SIZE : Toggle the display page size between double-size top, double-size bottom and normal.

■HOLD : The update of the current display page is halted so that the content will not be changed.

■CANCEL : Press this button to view the updated teletext page or display cancel.

■INDEX : Return to the index page.

■TIME : When watching a TV program, press this button to display the time at the top right hand corner of the screen.

Press this button again to remove the display.

■REVEAL : Press this button to display the concealed information. Such as solutions of riddles or puzzles.

■RED, GREEN, YELLOW, BLUE-In the TOP/FLOF automatic navigation mode, these keys select and display the linked page.

Trouble shooting

- In case a problem occurs with your LCD TV, please take the following steps first.
- If you still have the problem, turn the power off and contact your dealer or an authorized service center.

Screen related Matters

Problem	Action
The screen does not appear.	Is the power plug pulled out? Insert the power plug. Turn the main power button on and press the power button of the remote controller.
The screen appears too slowly after the power is turned on.	This problem occurs for a brief time in the process of image elimination processing in order to hide temporary screen noise that occurs when the power is turned on. But if the screen does not come after 1 minute has passed, contact your dealer or an authorized service center.
Screen is too bright or too dark.	Perform brightness adjustment or Contrast adjustment. (Please refer to page 29)
Screen is too large or too small.	Adjust the screen size. (Please refer to page 34)
Stripes appear on the screen and it shakes.	Stop using wireless telephones, hair driers and electric drills.
Simultaneous Screen does not appear.	Check that LCD TV and external equipment are connected. Check the inputs of simultaneous screen by pressing sub-screen selection.
The screen does not move.	Press the STILL button. (Please refer to page 38) Check if the Pause button is pressed on external equipment.
Computer Input Screen is abnormal.	Perform manual fine adjustment (Please refer to page 21).
Automatic Turn On does not work.	Automatic Turn On function works only when turning the LCD TV off with the remote controller or Standby button.

Sound related Matters

Problem	Action
Screen appears, Voice is not heard	1. Press the "Mute"button. (page 25) 2. Increase the sound by pressing volume adjustment button. 3. Check if voice terminal of external input is connected properly. 4. Check if speaker cables are connected properly. 5. If it is on PIP mode, convert audio of main screen and sub screen by pressing S.SELECT. 6. Select and check the other input. If the sound still does not work and the other channels are the same after you have done as the above, contact your dealer or an authorized service center. 7. Check if the headphone jack gets pluged in. 8. Check if the speaker on/off selection at "On" in sound mode.
Lots of noise (static) occurs.	When connecting a Set-Top-Box, check that it is on stereo broadcasting. If it is, the TV program may not be available or the reception may be bad. Check the audio source with another player. If that source is good, contact your dealer or an Authorized service center.

Trouble shooting Tips

● Others

Problem	Action
Remote controller does not work.	1. Check if main power is On. 2. Check that the batteries of the remote controller were loaded properly. 3. Check to see if any obstacle exists between the LCD TV and the remote controller and remove it, if any. 4. If the batteries have no power, replace them with two new batteries. 5.Please check out current mode of fnuction key.
LCD TV makes strange noise.	It is the noise when the mechanism expands or contracts from to changes to the environment due to factors such as humidity, temperature, etc. It is not a failure.
LCD TV indication lamp is On.	The red means the Stand-by power is ON. It will take a few seconds to turn off as the main power is off.

- This LCD TV is for household use and registered as suitable on electromagnetic waves.
- Therefore, you can use it in every location as well as residential areas.
- For improvement of product's quality, program can be upgrade without costomer's agreemant.

Supported Display Modes

● PC mode

Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)
640 × 480	31.47	60
	37.86	72
	37.50	75
720 × 400	31.47	70
800 × 600	35.15	56
	37.88	60
	48.88	72
	46.88	75
1024 × 768	48.36	60
	56.48	70
	60.02	75
1280 × 1024	64.0	60

● Considerations in Installation

- If any signal of unsupported resolution is input, the "Out of Range" message appears.

Supported Display Modes

Component Mode [Y, C_b(P_b), C_r(P_r)]

Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)	
720 × 480	15.73	60.00	SDTV, DVD 480i
720 × 576	15.63	50.00	SDTV, DVD 576i
720 × 480	31.47	59.94	SDTV, 480p
720 × 576	31.25	50.00	HDTV, 576p
1280 × 720	37.50	50.00	HDTV, 720p
1280 × 720	45.00	60.00	HDTV, 720p
1920 × 1080	28.12	50.00	HDTV, 1080i
1920 × 1080	33.75	60.00	HDTV, 1080i

- If any signal of unsupported resolution is input, the "Out of Range" message appears.

Specifications

Aspect Ratio	16 : 9
Screen Size (H × V)	708.954(H) × 398.592(V)mm
Resolution	1366 × 768
Pixel pitch (H × V)	0.1730(H) × 0.5190(V)mm (RGB Vertical Script)
Displayable Colors	16.7M
Brightness	550cd/m^2 (Center Luminance of White)
Contrast	1000:1
Viewing Angle	88° /88° /88° /88°
Input signal	PAL, SECAM, SD, HD, VGA~SXGA
Tuner	PAL, SECAM
PC Input	Analog RGB, DVI-D
AC Input	AC100-240V~, 50/60Hz, 3.5A (MAX)
Power Consumption	125W (Typical)
Dimensions/ Weight (W × H × D) (Kg)	TV Only - 946.6 × 559.6 × 106/ 16.4Kg with stand - 949.6 × 559.6 × 270/ 21Kg

Memo

Memo

Memo

DIGITAL ART

90-X-3220P-L01-EXP-00